UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
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SEP 3 4 2013

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District Department of Transportation
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Re: Draft Environmental Impact Statement & Section 4(f) Evaluation, Virginia Avenue Tunnel Reconstruction, Washington, D.C., July 2013, CEQ# 20130207

Dear Misers Hicks and Hameed:

In accordance with the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the United States Environmental Protection Agency (EPA) has reviewed the Virginia Avenue Tunnel Reconstruction Draft Environmental Impact Statement (DEIS) & Section 4(f) Evaluation. The project is located in Washington, DC along Virginia Avenue SE between 2nd Street SE and 11th Street SE. The existing Virginia Avenue Tunnel is owned by CSX, is approximately 4,000 feet long, and is greater than 100 years old. The DEIS addresses the proposed Virginia Avenue Tunnel reconstruction, including converting the tunnel's single track to a two-track configuration, and providing vertical clearance for double-stack intermodal container freight trains. The purpose and need for the proposed project is to preserve the continued ability to provide efficient freight transportation services by addressing structural and operational deficiencies, accommodating expected increases in freight, and ensuring freight services remain uninterrupted during the replacement of the facility.

The DEIS evaluates a no build alternative and three build alternatives. Alternative 1 represents the no build alternative, where the tunnel would not be reconstructed. Each of the build alternatives would result in two tracks with enough vertical clearance to accommodate double-stack container freight trains. Alternative 2 Rebuilt Tunnel/Temporary Runaround Track involves a rebuilt tunnel generally in the same location, utilizing a temporary runaround track to maintain operations during the proposed open trench construction. Alternative 3 Two New

Tunnels involves constructing sequentially two new tunnels each with a single track, shifted approximately 25 feet to the south, allowing trains to continuously operate in enclosed tunnels during construction. Alternative 4 New Partitioned Tunnel/Online Rebuild involves constructing a new tunnel with a center partition, shifted approximately 17 feet south, utilizing an open trench, which would accommodate both construction activities and train operations. At this time no preferred alternative has been identified.

EPA understands the purpose and need for the proposed action. However, as a result of our review EPA has identified some deficiencies and areas of concern, including environmental justice, children's environmental health, cumulative impacts, and community impacts, especially vibration, parks, visual, and utility disruptions. EPA recognizes efforts made to evaluate and address community concerns and impacts, to coordinate this complicated project with the community, and memorialize commitments. The DEIS includes several environmental commitments, for example ensuring that mobility and crossings are maintained during construction and all properties remain accessible, using techniques to reduce air emissions and fugitive dust, limiting pile driving to daytime hours, using noise control practices, providing pre-construction building inspections, using vibration control techniques, implementing a rodent control program, restoring Virginia Ave SE to at least its pre-construction condition, and restoring park areas to at least their pre-construction condition. While the DEIS includes several environmental commitments, there still remains a great deal of information that should be shared with the public, including final information regarding noise, vibration, utility disruptions, and post-construction configuration of Virginia Ave SE. EPA suggests that Federal Highway Administration (FHWA) and District Department of Transportation (DDOT) consider the best way to share information, some of which may not yet be available, with the public after the completion of the Record of Decision. Detailed technical questions, comments, and additional environmental commitments for consideration are provided in an enclosure to this letter.

EPA has rated each of the Virginia Ave Tunnel Reconstruction Project action alternatives an EC-2 (Environmental Concerns/Insufficient Information), according to the EPA rating system described on the website www.epa.gov/compliance/nepa/comments/ratings.html. EPA would like to offer to meet with FHWA and DDOT to discuss comments, particularly regarding Environmental Justice and Children's Health, in order to improve this document and future NEPA studies. EPA is also interested in discussing possible methods to share additional information with the public after the Record of Decision. Thank you for providing EPA with the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Alaina McCurdy; she can be reached at 215-814-2741.

Sincerely,

Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs

Enclosure

Enclosure
Detailed Technical Comments Virginia Ave Tunnel DEIS

Alternatives

- Clarify if double stack will be allowed during construction, particularly if an open trench alternative is selected. Will the proposed temporary runaround track accommodate existing single stack operations or double-stack? Would there be any difference in potential impacts from a runaround track that would accommodate single vs. double stack freight?
- The DEIS states that there is an existing bottleneck resulting from there being only a single track in the tunnel, causing trains to queue at each end of the tunnel. Will providing a second track and releasing the bottleneck at this location cause any unintended bottlenecks elsewhere?
- Pg. 3-42 temporary crossings are not shown for Alternative 4. Clarify if there will be different crossings for Alt 4 compared to other alts. Alt 4 Step 10 shows a safety walk, which is not noted on drawings for other alts. Clarify if this safety walk is specific to Alt 4, or if not, consider labeling this feature in other figures.

Noise and Vibration

- How will the public be informed about additional noise mitigation measures that will be developed during final design? It would be helpful to provide noise contour maps for existing, construction, and post-construction conditions for each alternative. Will noise impacts with alternatives that utilize pile-driving be different than other build alternatives?
- For the provided vibration analysis, how was the proximity to construction considered? The document states on Pg 5-32 that some properties are located much closer to the limits of disturbance (LOD) than others. How will these properties be affected? Consider if impacts to structures will differ based on structure age or type of construction. Consider the impact of vibration on utilities? Will vibration impacts differ among adjacent residences or build alternatives? If vibration impacts are not uniform, what is the range of potential vibration impacts based on distance? How was the 25ft reference distance determined? Why was this distance used only for construction impacts, not in the evaluation for post-construction impacts? We recommend that construction impacts be broken down by build alternative for both noise and vibration impacts.
- Pg 5-33- it would be helpful to include distances to Capitol Quarter townhouses, as it would improve the clarity of this section. Table 5-14 include distances to the locations shown in this table. Table 5-14 should include peak particle velocity (PPV)(in/sec) in total per hour.
- Vibration analysis includes discussion/table information on vibration causing human annoyance. Categorizing impact as human annoyance does not provide a descriptive analysis of the potential vibration impacts. EPA recommends that the vibration analysis include descriptions of the severity of impact and frequency of impact.
- It is not clear that vibration analysis from construction considers passing trains. This could be important in considering vibration impacts associated with build alternatives that utilize an open trench.

- Four parameters were given to calculate post-construction vibration impacts; however similar parameters were not clearly stated or utilized to evaluate construction related vibration, which appears to generate a greater amount of risk.
- Post-construction vibration impacts are not presented in the same format, using the same criteria shown in Section 5.7.1. We recommend that construction and post-construction impacts be presented using similar data, and should be clear and easy to understand. Criteria used should be clearly presented in tables provided.
- The DEIS states that the duration and nature of vibrations will be determined during final design. Outline how this information will be conveyed to the public. Outline what steps will be taken should future vibration analysis reveal that significant frequency or duration of annoyance or building damage will occur.
- Analysis should provide figures showing annoyance and/or damage distances with properties; especially highlight the south side track for Alt 3.
- Clarify when a vibration monitoring and mitigation plan will be shared with the public. Clarify if this plan also needs FHWA approval, in addition to DDOT approval.
- No analysis of potential vibration damage to I-695 was presented in the DEIS. We recommend this information be included, even if there is no anticipated vibration affect on I-695. Unanticipated damage caused by vibration could result in significant impacts to traffic, transportation, and the surrounding community.
- Show or identify graphically/list affected properties for each alternative/construction activity.
- EPA suggests clarifying what exactly will be included in the pre-construction building inspections. Clarify if there will be subsequent follow-up post-construction inspections for those properties. Suggest memorializing what actions will be taken should inspections reveal damage or other conditions caused by construction vibrations.
- Pg 5-36 notes that a phasing plan for high vibration generating activities will be prepared. How will this plan be shared with the public? Also noted is that the use of vibratory rollers and packers will be avoided near sensitive areas. It should be made clear where these sensitive areas are located and how they were identified.
- EPA suggests that should major changes in vibration data arise during final design, or during vibration monitoring, the information be brought back before the public in some manner, especially as construction generates the majority of impacts that have been analyzed in the DEIS. EPA suggests that FHWA and DDOT consider whether preparing supplemental NEPA analysis may be appropriate in certain situations.
- It is not clear why the vibration appendix provided only includes annoyance/damage line for Alternative 3. Is it assumed that all build alternatives will have the same vibration impact as Alt 3, or that Alt 3 will have the greatest impact? Suggest clarifying and making analysis in appendix more clear and easy to understand.

Stormwater, Aquatic Resources, and Vegetation

- Pg 5-38 mentions that stormwater management (SWM) measures would be included and would improve water quality, however it does not clearly state what measures will be utilized. Construction runoff would be "collected and treated in sediment traps or by super silt fence and proposed or existing inlets". Please clarify what type of treatment is being referred to. Additionally, it should be noted that EPA does not consider super silt

fence to as a treatment method, as this is a required sediment and erosion control measure. More information on construction SWM should be provided in the DEIS.

- It is also stated that construction runoff will be pumped into an adjacent combined sewer systems. Clarify if this will create, cause or contribute to overflows and discharges of waste into the Anacostia River. Consider both precipitation and groundwater sources. Does this combined sewer system already overflow? It is not clear how water drained to the tunnel will be treated prior to discharge into the combined sewer system. EPA suggests including a discussion on how/if the combined sewer system affects the Anacostia River and the Chesapeake Bay. EPA further suggests that SWM for the proposed project expand beyond the pumping into a combined sewer system, and consider including low impact development techniques.
- Pg 5-40- please provide each wetland size and type. Clarify if these wetlands have a letter as to their jurisdiction from the U.S. Army Corps of Engineers. Clarify if these areas are non-jurisdictional wetlands or not wetlands.
- The DEIS states that there will be temporary disturbance of the floodplain. Clarify how long this temporary distance will occur, and clarify if there is any difference in floodplain impacts between build alternatives. Suggest including a discussion of which flood functions will be affected. Outline what steps would be taken in a storm event to secure materials in staging areas, and any steps that may be necessary in the event of a flash flood.
- Pg 5-42- it would be helpful to include a map showing trees that will be removed for each alternative. Consider including species and tree diameter at breast height (DBH) on the map. How many of the trees mentioned on Pg 5-43 are part of larger forest/tree stands? Discuss if there will be any special treatment/replacement for these trees.
- Suggest including a discussion on possible tree removal restrictions, especially for forest stands. Tree removal is frequently restricted to protect bat and bird habitat. Consult with appropriate resource agencies to determine suitable restrictions that may consider mating and nesting seasons.

Parks

- Please provide a map in Section 5.12 Parks and Recreational Resources that shows Virginia Avenue Park, include park acreage and label dog park area. Clarify if any consideration has been given, or if there has been interest from the community, to providing a temporary dog park during construction. Include a discussion on Virginia Ave Park and dog park usage. It may be useful to include where the nearest similar dog park facilities are located. Additionally, discuss how much open area will remain at the park, during and post-construction. Include appropriate maps for each alternative. Clarify how long Alternative 4 will occupy the park.
- Give examples of possible park improvements that will or are being considered. Outline steps to include the surrounding community in identifying park enhancements, providing an opportunity for input. Also specify how park enhancements will be communicated to the public.
- Provide a map showing areas that will be disturbed from the Tiber Creek intercepting sewer. Provide a map showing the Garfield Connector.

- Suggest providing improved highlights/table of modified access and/or impacts to parks. It may be useful to list parks that will not be impacted by the proposed project. Evaluate whether parks will be impacted by noise and/or vibration.
- Pg 5-50 Potential Impacts on Section 6(f) Properties states that the project would not lead to a conversion of Virginia Ave Park to other uses because the construction impacts are temporary. While it may be accurate that construction impacts are not permanent, they are still long term in nature. How is the temporal loss of Virginia Ave Park accounted for until it is reconstructed? Consider the time it will take to fully replace mature trees. Is there a time limit after tunnel reconstruction for work to begin on Park reconstruction and enhancements? What process has been set up to ensure that these park resources are replaced in a timely fashion?

Utilities

- Tables 5-16/5-20 list which utility lines will be affected by construction and the type of impact. We suggest including the length of each item that will be impacted in order to give some kind of scale of required work. Clarify if all lines will be affected equally by each build alternative. Clarify what aspect of construction will affect each utility, for example will lines be affected by the trench, shift of centerline, deepening, or widening? Will utilities be adversely affected by pile driving or vibration?
- How much time in the overall construction time/sequence is due to utility impacts, relocations or protection?
- Provide more detail about service disruptions. The document states that certain temporary service disruptions would be unavoidable. Is there any idea which properties may be affected by service disruptions at this time? Please clarify if possible which utilities or if all utilities will be affected by service disruptions. Additionally it would be helpful to specify the anticipated frequency and duration of these disruptions. Although it states that disruptions would be as short as possible, this statement could be much more descriptive. Consider giving the worst case scenario for service disruptions. Suggest memorializing how residents will be notified of disruptions, and when notifications will be given.
- Clarify if electric power lines mentioned are currently overhead lines or if they are buried. If lines are currently overhead lines, could FHWA/DDOT consider burying them in order to reduce the visual impact or as visual mitigation?
- Pg 5-62 states that the HVAC system located on the Marine Corps Recreation Facility would have to be temporarily or permanently moved. However, Pg 5-48 states that no park & recreation facility would be directly impacted during construction, including the Marine Barracks turf field. Please clarify these two statements. Clarify if the Marine Corps Recreation Facility and the Martine Barracks turf field are the same resource. Clarify why the relocation of the HVAC system does not qualify as an impact to a park/recreation facility, as it is not clear that the relocated system may displace or decrease available recreational space at the facility.
- Pg 5-62 also states that water lines may need to be relocated with the Marine Corps property. Please clarify if this is an existing water line that runs through the facility or a line that is currently located out of the facility that will be relocated into the facility. It is not clear how the relocation of the water line will not cause an impact to the recreation facility or how it will not result in the disruption of the facility and/or turf field.

- The document states that public notification requirements of affected utility companies would be followed. EPA suggests specifying what those requirements are, as they may differ between utilities or companies. Is there a minimum amount of time that the public will be notified of service disruptions, for example will notice be given not less than 3 hrs, 24 hrs, 3 days? Will the public be notified of any service disruption, regardless of the duration? EPA suggests FHWA/DDOT consider going above the minimum public notification requirements of affected utility companies.
- Please clarify what steps/actions will be taken to make sure no unexpected outages occur, as well as steps/actions that will be taken in the event of an unexpected outage. When and how will the utility relocation plan be shared with the public?
- The document states that an attempt to do utility work during non-peak usage hours will be made. Please clarify what is meant by non-peak usage hours; is this time frame different for each utility or alternative? Does this refer to night or daytime hours?

Environmental Justice

- The goal of the Environmental Justice (EJ) assessment is to identify areas of potential EJe concern using objective clearly definable methodology, to identify the potential adverse impacts associated with the project, mitigations for those impacts, and other relevant data that may help to better define the situation from an Environmental Justice perspective in a comprehensive and coherent manner. EPA is concerned that environmental justice issues may not have been adequately addressed, that populations may not have been adequately characterized, additional documentation of impacts on populations of EJ concern may be needed, and that there may be impacts to populations of concern. Comprehensive steps should be taken to assure early, frequent and appropriate engagement of the community in the decision making process.
- The text in Section 4.3 Social and Community Conditions, subsection 4.3.1 Demographic Conditions contains the following text: "The U.S. Census Bureau provided year 2010 demographic data for the area in the general vicinity of Project. Figure 4-4 shows the relevant census blocks and census tracts. The census tracks extend far beyond the LOD, generally one-half mile to three-quarters of a mile on each side of Virginia Avenue SE. The pertinent census blocks encompass one or two blocks from Virginia Avenue SE. Basic demographic information, such as population, age, and race based on the 2010 Census is available at the block level. Employment and income information is only available on the census tract level. Tables 3-5 through 3-7 summarize the demographic information for the area surrounding the Project. For purposes of comparison, Tables 3-5 through 3-8 include the same information for the District. For descriptive purposes, U.S. Census Bureau terminology is used." Tables 3-5 through 3-8 are cited in the text, but this appears to be an error. The Tables should be referred to as 4-5 through 4-8.
- The demographic and assessment data required for a comprehensive assessment of the areas of potential Environmental Justice concern does not appear to be present. Clearly state what block groups constitute the study area. The document should include tables containing the Census Block Groups with demographic data. All of the Block Groups in the study area need to be listed, their respective data presented, and all calculations and comparative information provided in tabular form in the document. The inclusion of this data is important to anyone attempting to conduct a meaningful review.
- EPA suggests providing the calculations that provide the analysis of the areas of potential Environmental Justice Concern.

- A minority community is defined as have a minority population of 50% or more. However, the document states that "Among the census blocks surrounding the LOD, 13 were found to meet the threshold that exceeded 50 percent minority population or was at least 10 percent greater than the percentage for the District of Columbia (61.5 percent)." What is the relevance of referencing the 61.5% value? Include the data and other information related to the 13 Block Groups mentioned.
- Include what measures were used to assess low income populations. Show numbers and calculations. Discussion provided in Table 4-7 and accompanying text should be more useful in identifying at-risk areas from an economic standpoint.
- Maps provided should include greater detail related to the Block Groups and areas of Environmental Justice Concern. Block Groups should be easy to identify on maps.
- Section 5.3.3 should provide greater insight into the proposed mitigation measures for the potential impacts. It would be helpful to point out information contained elsewhere that points to steps taken to address potential impacts.

Children's Environmental Health

Executive Order 13045 on Children's Health and Safety directs that each Federal agency shall make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and shall ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to health and safety risks. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed. Although the DEIS identifies communities and public schools located near the proposed project area, the DEIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children's health.

- Children's Environmental Health does not appear to have been included in the DEIS. FHWA and DDOT should address Executive Order 13045 for the Protection of Children from Environmental Health Risks and Safety Risks. Without analysis or documentation on this topic, it cannot be assumed that there is no potential risk associated with the proposed project that may adversely affect children's health.
- Some limited information on children under age 18 was presented on pg. 4-19 in Table 4-6. However this data was not provided at the block group or census tract level. Based on 2010 Census data, it appears that at both the block group and tract level there are areas with a high percentage of children under age 18 that should be considered in the DEIS. EPA suggests including the tract and block group level data for children under age 18, race and low-income/poverty in the DEIS in order to determine if the study area contains high and/or disproportionate percentages of children, low-income and minority populations and the potential impacts to those children's health.
- EPA recommends that the EIS include an evaluation of potential direct, indirect and cumulative health impacts of the project that may have a disproportionate effect on children's health. This may include evaluating the excavated soil lead levels, and additional consideration to dust reductions and stockpile stabilization techniques. We also suggest evaluating noise and vibration impacts associated with the project specific to children. Consider evaluating potential impacts associated with pest/rodent extermination specific to children.

- EPA suggests that the children's health analysis consider available Ward specific children's health data. Include documentation of asthma rates and poisoning rates in the study area or Ward, and consider the proposed project in relationship to these rates, particularly air quality, mobile air source toxics, and lead levels in soil. Consider whether any additional environmental commitments (i.e. dust suppression, anti-idling, etc) should be added specific to children's environmental health.
- Clarify whether mitigated interior noise levels were estimated for homes, schools, childcare centers, and other sensitive receptors. If not, assess the potential interior noise levels that may be experienced at these locations that may have an impact on health and learning, especially at homes, schools and childcare centers.
- Figure 4-6 shows schools within the study area. EPA suggests adding additional sensitive receptors, including private schools, preschools and childcare facilities and evaluating the project's potential impacts to these receptors within the study area and any impact to children while utilizing these facilities. It appears that many of the schools shown on this figure are located along several of the major hauling routes for the project, particularly along M Street and New Jersey Ave. The document also states that there are other projects occurring in the study area along M street. Consider potential cumulative impacts on children's health from these projects and the proposed action.
- Identify mitigation measures to reduce impacts from the proposed project's construction and operation to schools and child care centers near the proposed project area, including measures identified in the voluntary EPA School Siting Guidelines (http://www.epa.gov/schools/siting/download.html) and voluntary EPA Guidelines for States: Development and Implementation of a School Environmental Health Program (http://www.epa.gov/schools/ehguidelines/index.html).
- The following sources can be used to obtain asthma data, DC Control Asthma Now (DC CAN), DC Department of Health, contact, Asthma Program, (202) 442-915 and http://www.cdc.gov/asthma/brfss/archive.htm.
- The following sources can be used to obtain lead data http://www.cdc.gov/nceh/lead/ or the Childhood Lead Poisoning Prevention Program at (202) 535-2624.

Cumulative Impacts

- The cumulative impact assessment provided appears to be incomplete. Analysis should include a thorough cumulative impact analysis for past, present and reasonably foreseeable projects occurring in the project areas. The DEIS only seems to present a short list of present and near future projects, and does not define a study area. EPA suggests that a secondary and cumulative effects analysis begin with defining the geographic and temporal limits of the study; this is generally broader than the study area of the project. The document should address potential indirect and cumulative effects in the project areas, and analysis may aid in the identification of resources that are likely to be adversely affected by multiple projects, and sensitive resources that could require additional measures. It is not clear that all relevant resource topics analyzed in the DEIS have been included in the cumulative effects analysis.
- EPA suggests that additional analysis be provided regarding potential cumulative impacts from the proposed project and the Clean Rivers Project, which is occurring along M Street. Previous sections in the document state that M Street will be affected by the Clean Rivers Projects, and will be decreased to one travel lane. This is of concern as

many of the proposed haul routes for the proposed project utilize M Street, and there may be cumulative effects possibly including but not limited to traffic, noise, vibration, air, parks, transportation, and historic properties.

Other resources and general comments

- Please include more information on the rodent control plan mentioned on Pg 5-44. It is not clear that the plan as described in the DEIS makes up a complete effort, as the main activity involves disposing of food garbage regularly and separately. Consider if this control plan should also include cockroaches. Clarify if extermination and/or trapping could occur only before construction, or if these activities could occur during or post-construction. What if construction activities cause rodents or other pests to infiltrate adjacent properties? Discuss any options or steps that may be available to property owners, including extermination and/or trapping.
- Clearly state the anticipated construction time periods for each build alternative. Does this time frame include reconstruction of Virginia Ave SE and Virginia Ave Park reconstruction/enhancements? What is the anticipated time frame to reconstruct Virginia Ave SE and reconstruct/enhance Virginia Ave Park?
- Would any areas experience different visual impacts? Would there be different visual impacts by alternative? For example Alt 4 utilizes a pile driver, would the height of this equipment create different visual impacts?
- The discussion of post-construction visual impact notes loss of canopy and greater visual intrusion of I-695. However, it appears that this impact would also occur during construction. We suggest including this impact in the visual and aesthetic condition analysis during the construction. Evaluate whether trees can be removed in phases. We suggest including an estimate of the time is would take to replace mature trees. Limited visual mitigation is proposed. Consider whether overhead utility lines can be buried, or a graffiti removal program can be utilized as visual mitigation. Suggest consulting with the local community on this issue.
- The DEIS states that the proposed closure of Virginia Ave SE is two phased. Specify the duration of each phase for each alternative. Clarify when detailed plans to restore Virginia Ave SE will be developed and shared with the public, as several changes from the existing roadway are proposed. How will desired changes to the existing roadway be consulted with the community? How will selected changes to Virginia be memorialized? Clarify if these changes will require or undergo a separate NEPA analysis.
- Limited air information is included in the DEIS. EPA suggests including more detailed modeling information in support of the conformity determination and presented emissions. Based on the detail provided in the DEIS, it is difficult for EPA to conduct thorough evaluation relating to air and is unable to provide a comprehensive set of comments.
- EPA is concerned that they may be properties covered under Section 106 that may be affected by the proposed action. It is not clear that possible impacts from noise, traffic, vibrations, and construction have been fully assessed. A similar concern appears to have been raised in Capitol Hill Restoration Society's November 19, 2012 letter. The Area of Potential Effects (APE) shown on Figure 4-15 may be too restrictive, as it does not appear to include majority of construction haul routes and access points shown on Figure 3-14. We are concerned that there may be resources outside of the identified APE that may be directly or indirectly affected by the proposed project, especially in light of the

lengthy construction period. EPA is also concerned that information not yet available for noise, vibration, utility disruptions, and/or the reconstruction plans for Virginia Ave SE have not been assessed for potential affects to Section 106 resources. EPA suggests further coordination with the DC Historic Preservation Office regarding Section 106 resources.

Additional Environmental Commitments for Consideration

Air

- Consider whether an air quality and dust control specification could be put in place, which would outline necessary measures and requirements for contractors to follow in order to control on- and off-site nuisance dust. Consider implementing a dust control program.
- Consider whether a PM-10 or PM-2.5 monitoring program should be utilized.
- Use ultra-low sulfur diesel (ULSD) fuel in off-road construction equipment with an engine horsepower (HP) rating of 50 HP or above;
- Use diesel engine retrofit technology in off-road equipment to further reduce emissions. Such technology may include diesel oxidation catalyst/ diesel particulate filter (DOC/DPF), engine upgrades, engine replacements, or combinations of these strategies;
- Limit unnecessary idling times on diesel-powered engines to three minutes;
- Locate diesel-powered exhausts away from fresh air intakes; and
- Control dust related to the construction site through a Construction Environmental Protection Program (CEPP), including a Soil Erosion and Sediment Control Plan that includes, among other things, spraying of a suppressing agent (nonhazardous, biodegradable) on dust piles, containing fugitive dust, and adjusting construction activities to respond to meteorological conditions, as appropriate.

Noise and Vibration

- Where practicable, schedule individual project construction activities to avoid or minimize adverse impacts. Consider using noise barriers, including temporary barriers, semi-permanent barriers, noise curtains, and/or noise tents. Consider using vibration reducing techniques or mitigation measures.
- Coordinate construction activities with projects under construction in adjacent and nearby locations to avoid or minimize impacts.
- Consider condition of surrounding buildings, structures, infrastructure, and utilities, where appropriate. Consider whether any special protection is needed for historic properties.
- Prepare contingency measures in the event established limits are exceeded. Consider steps to avoid generating noise/vibration from cumulative operations that may exceed noise limits.
- Consider establishing a public communication plan in order to keep the public informed and attempt to reduce public frustration. This plan could include regular public meetings, emails, a hotline, and other notices.
- Consider whether a noise technician/acoustical engineer is needed during peak construction phases.
- Consider restricting the use of certain types of equipment during noise/vibration-sensitive hours. Consider restricting night work all together.

- Consider whether temporary relocations of noise/vibration-sensitive receptors are an option or whether relocations are necessary.